

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 12184581	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. <b>PCT/AU2003/001565</b>	International Filing Date (day/month/year) 21 November 2003	Priority Date (day/month/year) 25 November 2002
International Patent Classification (IPC) or national classification and IPC <b>Int. Cl. <sup>7</sup> F16L 3/10</b>		
Applicant <b>VSL PRESTRESSING (AUST) PTY LTD et al</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheet(s).

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 16 June 2004	Date of completion of the report 20 December 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>BAYER MITROVIC</b> Telephone No. (02) 6283 2164

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☐ the international application as originally filed.
- ☒ the description, pages 1-5, as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☒ the claims, pages , as originally filed,  
pages , as amended (together with any statement) under Article 19,  
pages , filed with the demand,  
pages 6, 7, received on 9 December 2004 with the letter of 9 December 2004.
- ☒ the drawings, pages 1/4 - 4/4, as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the sequence listing part of the description:  
pages , as originally filed  
pages , filed with the demand  
pages , received on with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-10	YES
	Claims	NO
Inventive step (IS)	Claims 1-10	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-10	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)**

The following documents identified in the International Search Report have been considered for the purposes of this report:

D1: US 6431216

D2: US 2002/0100517

D3: US 6407338

D4: US 6250406

D5: WO 2000/002296

D6: FR 2660332

D7: DE 4113375

D8: EP 173350

D9: DE 2736084

Document D1 discloses a protective tube assembly for protecting cylindrical structures such as pipes, cables, tubes and the like. It has a pair of sections or segment which when assembled form a tube, having a cylindrical cross-section. The two sections have mating surfaces, whereby one of the sections has a tongue, while the other has a cooperating groove. One of the sections has a locking member in the form of the protrusion to resist longitudinal movement of the sections when assembled. The protection assembly can be made from an insulating material to provide electrical protection around transmission lines (column 7 lines 8-27).

Each of the remaining documents D2-D8 discloses a cylindrical protection structure having at least two longitudinally cooperating semicylindrical segments which are placed or clamped around the cylindrical object to be protected (pipe, cable, etc.). The structure when assembled has a cylindrical cross-section having a chamber. Varieties of longitudinal engagement/locking means between semicylindrical parts, which provide a secure joint are disclosed. Structure can be made of insulating materials.

**CLAIMS 1-10 – NOVELTY AND INVENTIVE STEP**

Claims 1-10 meet the criteria set forth in PCT Article 33(2) for novelty and 33(3) for Inventive Step. The prior art published before the priority date does not disclose or obviously suggests to a person skilled in the art invention defined in claim 1 or its embodiments further defined in claims 2-10.

**CLAIMS 1-10 – INDUSTRIAL APPLICABILITY**

The claims are related to products capable of commercial application.

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## CLAIMS

1. A protective device for use in the protection of at least a portion of an elongated article, the protective device including a main body, first and second parts which are connectible together such that, in an assembled position the main body has a chamber therein, the first and second parts each having two longitudinal extending side edge portions respective side edge portions of the first part being adapted to cooperate with respective side edge portions of the second part to connect the two parts together in the assembled position, said first and second parts overlapping when in the assembled position and being connected together by relative movement in the axial direction so as to adopt the assembled position.
2. A protective device according to claim 1 wherein the first and second parts are partially circular when viewed in cross-section, the first part comprising a major segment of a circle and the second part forming a minor segment of a circle.
3. A protective device according to claim 2 wherein the side edge portions of the first or second part include a recessed section for receiving the side edge portion of the other part.
4. A protective device according to any preceding claim wherein when in the assembled position the main body is open at at least one end.
5. A protective device according to any preceding claim wherein when in the assembled position the main body is open at both ends.
6. A protective device according to any preceding claim wherein one of the ends of the main body is belled for receiving the other end of an adjacent device.
7. A protective device according to any preceding claim further including insulation on the internal surface of one or both parts of the main body.

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8. A protective device according to any preceding claim further including a locating element which projects from the inner wall of one of the two parts.
- 5 9. A protective device according to any preceding claim wherein the main body of the device is formed from material known as reactive powder concrete or ultra high performance fibre reinforced concrete.
- 10 10. A protective device according to claim 9 wherein the material is Ductal (trade mark).